

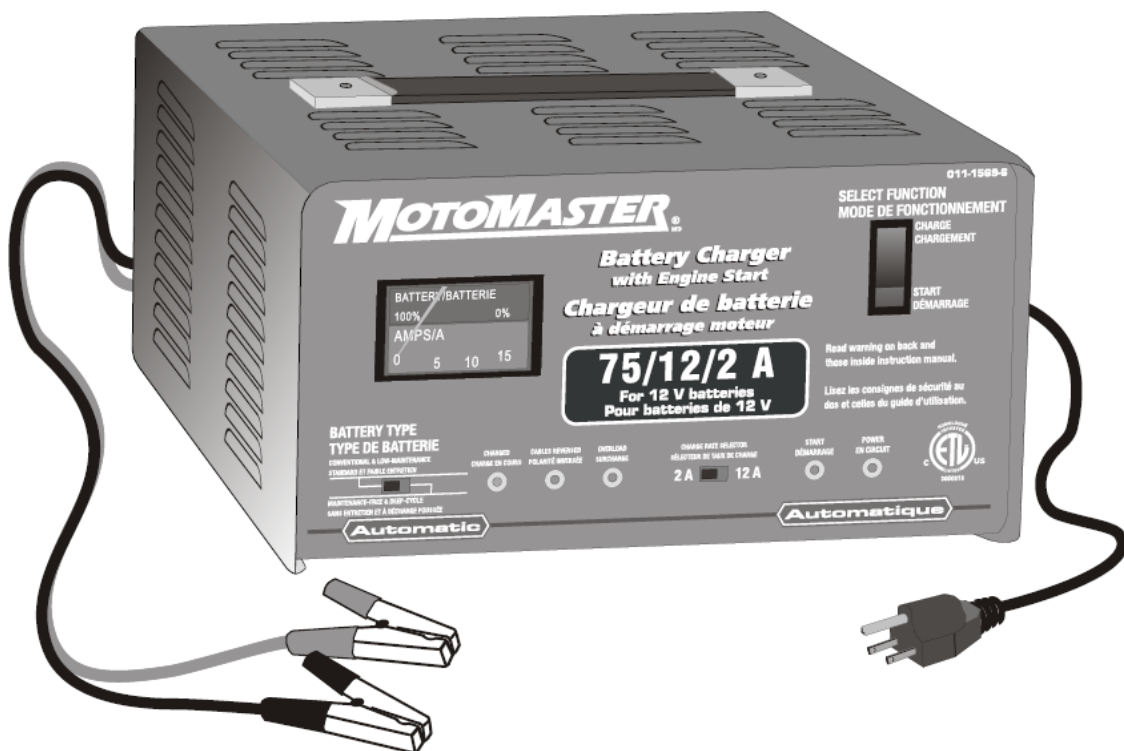
**Battery
Charger
Model:**

**011-1569-6
75/12/2 A
For 12-V batteries
Battery charger
With Engine Start**

MOTOMASTER

Owner's Manual

-[!]/Save these instructions!



Important Safety Instructions

Read instructions and rules for safe operation carefully.

Working in the vicinity of a lead-acid battery is dangerous. Batteries generate explosive gases during normal battery operation. For this reason, it is of utmost importance that each time before using your charger, you read this manual and follow the instructions exactly.

A. GENERAL BATTERY SAFETY

1. Before you use your battery charger, be sure to read all instructions and cautions printed on:

- Battery charger

- Battery
 - Vehicle or unit using battery
2. Use battery charger on LEAD ACID type rechargeable batteries only, such as used in autos, trucks, tractors, airplanes, vans, RV's trolling motors, etc. Charger is not intended to supply power to low-voltage electrical system other than in an automotive application.
(!)**WARNING:** Do not use battery charger for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage to property.
 3. Use only attachments recommended or sold by manufacturer. Use of non-recommended attachments may result in fire, electric shock, or injury.
 4. When disconnecting the battery charger, pull by the plug not by the cord. Pulling on the cord may cause damage to cord or plug.
 5. Locate battery power cord so it cannot be stepped on, tripped over, or subjected to damage or stress.
 6. Do not operate charger with damaged cord or plug. Have cord replaced immediately.
 7. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. Take it to a qualified professional for inspection and repair.
 8. Do not disassemble charger. Take it to a qualified professional when service or repair is required. Incorrect reassembly may result in electric shock or fire.
 9. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning.
 10. Do not use an extension cord unless absolutely necessary. Use of an improper extension cord could result in fire or electric shock. If an extension cord must be used, make sure that:
 - Pins on plug of extension cord are the same number, size, and shape as those of plug on charger.
 - Extension cord is properly wired and in good electrical condition.
 - Wire size is large enough for AC ampere rating of charger, as specified below:

Length of cord (feet/metres):	25' (7.6 m)	50' (15.2 m)	100' (30.5 m)	150' (45.7 m)
AWG size of cord:	16	14	10	8
 11. Always charge battery in a well ventilated area.
NEVER operate in a closed-in or restricted area without adequate ventilation.
(!) **WARNING:** Risk of explosive gas.
 12. Locate charger as far away from battery as DC charger cables permit.
 13. Do not expose charger to rain or snow.
 14. **NEVER** charge a frozen battery. If battery fluid(electrolyte) is frozen, bring into a warm area to thaw before charging.
 15. **NEVER** allow battery acid to drip on charger when reading specific gravity or filling battery.
 16. **NEVER** set a battery on top of charger.
 17. **NEVER** place charger directly above battery being charged. Gases from battery will corrode and damage charger.
 18. **NEVER** touch the battery clips together when the charger is energized.

(!) **WARNING:** Battery chargers get hot during operation and must have proper ventilation. Air needs to flow around entire charger. Do not set on flammable items like carpeting, upholstery, paper, cardboard, etc. Charger will damage leather and melt plastic and rubber.

B. PERSONAL PRECAUTIONS AND SAFETY

1. (!) **WARNING:** Wear complete eye protection and protective clothing when, when working with lead-acid batteries.
2. Make sure someone is within range of your voice or close enough to come to your aid when you work with or near a lead-acid battery.
3. Have plenty of fresh water and soap nearby for use if battery acid contacts skin, clothing, or eyes. If battery acid contacts skin or clothing, wash immediately with soap and water.
4. Avoid touching your eyes while working with a battery. Acid particles (corrosion) may get into your eyes! If acid enters your eyes, immediately flood eye with running cold water for at least 10 minutes. Get medical attention immediately.
5. Remove all personal metal items such as rings, bracelets, necklaces and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring (or the like) to metal, causing a severe burn.
6. Take care not to drop a metal tool or other metal onto the battery. Metal may cause sparking or short-circuit the battery or another electrical device. Sparking may cause an explosion.
7. Always operate battery charger in an open, well ventilated area.
8. **NEVER** smoke or allow a spark or flame in the vicinity of the battery or engine. Batteries generate explosive gases!

C. GROUND AND AC POWER CORD CONNECTIONS

Charger should be grounded to reduce risk of electric shock. Charger is equipped with an electric cord having an equipment- grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This battery charger is designed for use on a nominal 120-V circuit and has a grounded plug that looks like the plug illustrated (Fig.1 A.) This plug should be used in a grounded outlet. The plug pins must fit the receptacle (outlet).

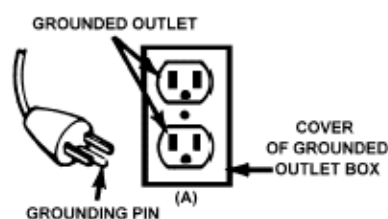
(!)**DANGER: NEVER** alter the AC cord or plug provided. If it will not fit outlet, have proper outlet installed by a qualified electrician. Improper connection can result in a risk of an electric shock.

D. PREPARING TO CHARGE

1. Make sure you have either a 12-V or a 6-V lead-acid battery and select battery charger switch accordingly.
2. Clean battery terminals. Take care to keep corrosion from coming in contact with your eyes.
3. If required, add distilled water in each cell until battery acid reaches levels specified by battery manufacturers'. This helps purge excessive gas from cells. Do not overfill. For a battery without cell caps, carefully follow manufacturer's recharging instructions.
4. Study all battery manufacturers' specific precautions, such as removing or not removing cell caps while charging, and recommended rates of charge.
5. Be sure area around battery is well ventilated while battery is being charged. Gas can be forcefully blown away by using a piece of cardboard or other non-metallic material such as a fan.
6. If necessary to remove battery from vehicle to charge, always remove grounded terminal from battery first. Make sure all accessories in the vehicle are off, so as not to cause an arc.
7. A marine(boat) battery must be removed and charged on shore. To charge it on board requires equipment specially designed for marine use.

Charger Selection Guide (see section H)

Ampere Rating	Charge Hours	Recommended Battery Uses
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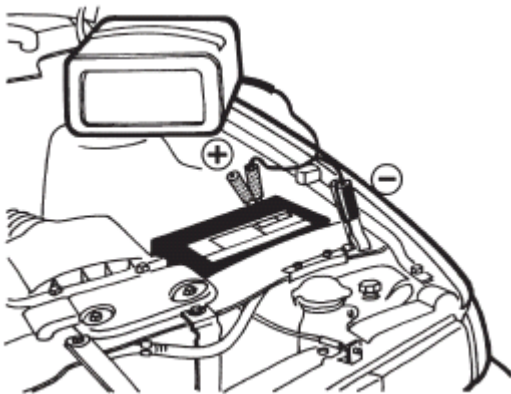


GROUNDING METHOD

2 A	3-6 hrs	Charge motorcycle, snowmobile, lawnmower, trickle charge car, truck, RV, marine.
12 A	3-4 hrs	Cranking assists helps turn engine when battery power is low.
75 A	5 s on 100 s stop	

E. OPERATING INSTRUCTIONS: CHARGING BATTERY IN VEHICLE

1. Position AC and DC cords in such a way as to reduce risk of damage by hood, door, or moving engine part.
2. Stay clear of fan blades, belts, pulleys, and other parts that can cause injury to person.
3. Check polarity of battery posts. POSITIVE (POS,P,+) battery post usually has larger diameter than NEGATIVE (NEG,N,-) post.
4. Determine which post of battery is grounded (connected to the chassis). If negative post is grounded to chassis (as in most vehicles), see No. 5. If positive post is grounded to the chassis, see No. 6.
5. For a negative-grounded vehicle, connect POSITIVE (RED) clamp from battery charger to POSITIVE (POS, P,+) ungrounded post of battery. Connect NEGATIVE (BLACK) clamp to vehicle chassis or engine block, away from battery. Do not connect clamp to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block (see Figure 7).
6. For a positive-grounded vehicle, connect NEGATIVE (BLACK) clamp from battery charger to NEGATIVE (NEG, N,-) ungrounded post of battery. Connect POSITIVE (RED) clamp to vehicle chassis or engine block, away from battery. Do not connect clamp to carburetor, fuel lines, or sheet-metal body parts. Connect to a heavy gauge metal part of the frame or engine block.
7. When disconnecting charger, disconnect AC cord, remove clamp from vehicle chassis, and then remove clamp from battery terminal, in that order.
8. See charge period for length of charge information.



F. OPERATING INSTRUCTIONS: CHARGING BATTERY OUT OF VEHICLE

A SPARK NEAR THE BATTERY MAY CAUSE BATTERY EXPLOSION. TO REDUCE RISK OF A SPARK NEAR BATTERY:

1. Check polarity of battery posts. POSITIVE (POS, P,+) battery post usually has a larger diameter than NEGATIVE (NEG, N,-) post.
2. Connect POSITIVE (RED) charger clamp to POSITIVE (POS, P,+) post of battery.
3. Position yourself at free end of cable as far away from battery as possible. Then connect NEGATIVE (BLACK) charger clamp to free end of cable.
4. Do not face battery when making final connection.
5. When disconnecting charger, always do so in reverse sequence of connecting procedure and break first connection while as far away from battery as possible.
6. A marine (boat) battery must be removed and charged on shore. To charge a battery on a boat requires equipment specially designed for marine use.

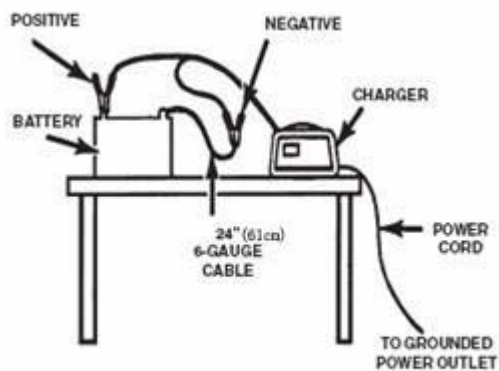


FIGURE 8: CONNECT NEGATIVE BATTERY
CLIP TO 24" (61cm) CABLE END

G. METER & LED FUNCTIONS

The meter is available when the charge is used for 2A, 12A current. When charger is used for start function, the needle will indicate to the right, but it is not the indication of start current.

H. BATTERY CHARGER CONTROLS

SWITCHES

The switches on the 11-1569-6 charger are for selecting the charging rates (A) desired for your application. Use the 2-A rate feature offered on some models to charge smaller batteries such as those on motorcycles, snowmobiles, etc. Use the 12-A rate to charge larger automotive batteries. To obtain the 75mps start, simply turn the ignition key on the vehicle.

I. BATTERY TYPES

Two basic types of lead-acid batteries can be given a charge with this charger: (1) Conventional and low Maintenance, (2) Maintenance Free & DEEP -CYCLE

Conventional and Low Maintenance Batteries: These are the antimony/lead batteries.

Conventional/Low Maintenance batteries require periodic addition of water to the acid solution (electrolyte). Additional water may be added by removing the filler caps located on the top of the battery.

IMPORTANT: When antimony is known to be one of the materials used in the battery's construction, that battery is a Low Maintenance/Conventional type.

(!)CAUTION: Some Low Maintenance batteries have a relatively smooth top without any apparent battery filler caps. If, however, the battery manufacturer/distributor recommends periodic checking of electrolyte level and provides access to the battery for water additions, the battery is probably a Low Maintenance/ Conventional type.

Maintenance Free Batteries: These are calcium/lead batteries and normally do not require water additions. Therefore, filler caps have been removed from the battery surface. These batteries will have a smooth or sealed appearance.

J. BATTERY CHARGING

1. Before charging any battery, make sure the electrolyte (battery fluid) in each cell is at correct level. This is not required on maintenance free batteries. Read instructions on battery.
2. If the battery is being charged inside the vehicle, use connection procedures outlined in Section E. Should the battery be removed from the vehicle, follow the instructions in Section D (step 6) and Section F. Plug the power cord into the AC outlet.

K. CHARGE PERIOD

The approximate time required to bring a battery to a full charge state depends upon the number of ampere hours (Ah depleted from the battery). Ah are determined by multiplying the number of hours by the number of amperes supplied by the battery to the load. For example, if a load was connected to battery which drew 7 amperes for a period of 5 hours, the battery will have supplied 35 Ah. The approximate recharge time would be calculated by dividing 35 Ah depleted from the Ah battery, by the ampere charge rate of the charger .To allow for tapering of the charge rate add 25% to the charge time.

L. INDICATIONS OF A FULLY CHARGED BATTERY

When the battery is fully charged , the LED indicate of “charged” will turn Green.

M. ENGINE START

1. Connect the charger to the battery following instructions given in Section K.
2. Plug power cord into AC outlet, then move switch from Off to Engine Start. Move to Engine Start.
3. During extremely cold weather, or if the battery is fairly exhausted, charge the battery for a few minutes before you attempt the Engine Start.
4. Crank the engine by turning the ignition key.
5. If the engine fails to start, let the battery charge for another few minutes then, try the

engine start again.

N. CHARGER LOCATION PRECAUTIONS

Never place the charger directly above battery being charged, gases from battery could damage the charger.

Never allow the battery acid to drip on charger when reading specific gravity or filling battery.

Do Not operate the charger in a closed in area or restrict ventilation in any way. Keep off from carpets, seats, etc.

Do Not set the battery on top of the charger.

LIMITED WARRANTY

This Motomaster® product is guaranteed for a period of two (2) years against defects in workmanship and materials. Should this product become defective within the stated warranty period, return it to the store with **proof of purchase**, and it will be replaced or repaired free of charge.

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